
Land at Higher Kinnerton, North Wales

Protected Species Survey Report for Reptiles

Compiled by Ecology Services Ltd.

on behalf of

Stewart Milne Homes North West England

November 2018 (rev. May 2019)



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1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by Stewart Milne Homes NW England Ltd. in May 2018 to undertake an ecological appraisal of an area of land off Sandy Lane, Higher Kinnerton, Flintshire, CH4 9DZ, located by National Grid Reference (NGR) 333381, 361536 at centre. The development site, which is bisected by Sandy lane, is referred to within this report as Area A and Area B to provide for ease of reference. The site, however, is assessed as a single development. The locations and boundaries of Area A and Area B are shown on Drawing 1 along with the location of reptile refugia.
- 1.2 The site is proposed for residential development comprising 107 residential dwellings with associated infrastructure and landscaping.
- 1.3 The ecological assessment identified one record of grass snake within 2km of the development site. Habitats in the wider survey area are considered to be suitable to support common reptile species such as grass snake. Habitats within the site including the ponds (feeding), grassland edges, hedgerows, scrub and a compost heap are considered suitable for reptile species such as grass snake. The ecological assessment made recommendations for a reptile survey.
- 1.4 The aims of the survey were to:
 - Review the desktop study of reptile records in the local area.
 - Undertake a reptile presence/absence survey of habitats considered suitable to support such species.
 - Record/map any locations of reptiles.
 - If evidence is found within the proposed development site, provide advice to protect reptiles and their habitat.
- 1.5 All survey works were undertaken by experienced ecologists during suitable weather conditions and at an appropriate time of year.

2.0 Regulatory & Planning Framework

Statutory Legislation

- 2.1 All British terrestrial native reptiles are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are protected under Section 9 of the Act.
- 2.2 Common reptile species comprise of adder (*Vipera berus*), slow worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and common lizard (*Lacerta vivipara*) which are protected under Section 9 (parts 1 and 5) of the Act, against intentionally killing, injury and taking. The Act also prohibits selling, offering for sale, possessing or transporting for the purpose of sale or publishing advertisement to buy or sell.
- 2.3 Where any works affect the common reptile species, appropriate mitigation measures would be required to prevent intentional killing or injury.
- 2.4 Rarer reptiles are afforded additional protection; the species include smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*). These are afforded additional protection under the Conservation of Habitat and Species Regulation 2017 (as amended). Collectively the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:
 - Intentionally or deliberately kill, injure or capture.

- Deliberately disturb.
- Damage or destroy breeding or resting places or places used for shelter or protection.
- Possess, or any part of a smooth snake or sand lizard, unless acquired legally.
- Sell, barter, exchange or transport for sale, etc., smooth snake and sand lizards or any part of them.

2.5 Disturbance is defined as that which is likely:

- to impair their ability –
 - To survive, to breed or reproduce, or to rear or nurture their young, or
 - In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- To affect significantly the local distribution or abundance of the species to which they belong.

2.6 The legislation covers all life stages. Eggs, juvenile and adults are covered equally by the legislation.

2.7 Where any works affect smooth snake or sand lizard, licences can be issued to allow otherwise prohibited acts (e.g. capturing or handling sand lizards). Licences for scientific study and conservation, education and photography are issued by the statutory nature conservation organisations. Smooth snake and sand lizard are not present at this site.

Planning Policy Wales (PPW)

2.5 In brief the Planning Policy Wales Edition 10 (December 2018) sets out the Welsh Government's objectives for biodiversity and ecological networks. Development plan strategies, policies and development proposals must consider the need to: support the conservation of biodiversity, in particular the conservation of wildlife and habitats; ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats; ensure statutorily and non-statutorily designated sites are properly protected and managed; safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

2.6 Planning Policy Wales Technical Advice Note 5: Nature Conservation and Planning (Welsh Assembly Government, 2009) states that the presence of a protected species is a material consideration when a local planning authority is considering a development proposal that, if carried out, would be likely to result in disturbance or harm to the species or its habitat.

Environment (Wales) Act 2016

2.8 The Environment (Wales) Act 2016, sets out the requirement for the 'sustainable management of natural resources' together with new ways of working to achieve this. Part 1 of the Environment Act sets out Wales' approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory 'principles of sustainable management of natural resources' defined within the Act.

Section 6 – Biodiversity and resilience of ecosystems duty

- 2.9 Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales.
- 2.10 The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

Section 7 - Biodiversity lists and duty to take steps to maintain and enhance biodiversity

- 2.11 This section replaces the duty in Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.
- 2.12 The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps. Part 1 of the Act, including Sections 6 and 7, came in to force on May 21, 2016.

3.0 Methodology

Survey Methodology

- 3.1 The reptile survey followed the standard best practice methodology set out in Froglife Advice Sheet 10: Reptile Survey (1998).
- 3.2 Being cold blooded, reptiles are known to utilise artificial cover objects (ACO) refugia for basking in order to raise their body temperature high enough to enable them to become active and hunt. These refugia are usually made from corrugated metal sheeting or roofing felt and placed in suitable areas of the survey site.
- 3.3 Suitable areas are those that are exposed to the sun but hidden away in vegetation, for example areas exposed to the sun with good vegetative structure provided by grassland, scrub/heath mosaic. Areas of rough grassland on the edge of dense scrub are considered ideal habitat for reptiles as this provides vegetative structure, which is both at and just above ground level. Areas with rabbit warrens and holes are also favored as they provide ideal opportunities for shelter and hibernation. The density of refugia will affect the chances of identifying reptiles (the more refugia there are, the higher the chances of recording reptiles).
- 3.4 Artificial cover objects 'refugia' consisting of 0.5 metre squares of roofing felt were deployed at suitable locations at a density of at least 10-20 refugia per hectare. Each refugia was then given a number so that results could be analysed. The refugia were then left for up to 7 days to bed-in to allow animals to find and become accustomed to them. The refugia were checked on seven occasions of suitable weather over the survey period (successive days are acceptable). Following completion of the survey, all refugia were removed off site.

4.0 Results

Desktop Study Results

- 4.1 The desktop study found one record of grass snake within 2km of the development site, dating from 2001, the record is located approximately 300m to the south east of the site. There are no barriers between this record and the site. See Appendix 1 for data search plan.

Evidence of Reptiles

- 4.2 The refugia were located around the site, mainly in areas of a southern aspect, which possessed the suitable vegetative structure and exposure to the sun where reptiles would most likely bask. Drawing 1 identifies the locations of the refugia.
- 4.3 The surveys were undertaken between the 4th September 2018 and the 30th September 2018; see Table 1 below for survey dates and temperatures.

Table 1: Survey Dates & Temperatures

Survey Dates	Surveys Rounds	Temperatures (°C)
6 th August 2018	Refugia laid	
4 th September 2018	Survey 1	17
6 th September 2018	Survey 2	11
12 th September 2018	Survey 3	15
13 th September 2018	Survey 4	14
22 nd September 2018	Survey 5	15
27 th September 2018	Survey 6	16
30 th September 2018	Survey 7	14

- 4.4 A total of 40 refugia were initially laid and checked and no reptiles were recorded during any of the surveys, although common toad (*Bufo bufo*) were found on site; see Table 2 below for the survey results.

Table 2: Survey Results

Survey Date	Reptile Results	Amphibian Results
6 th August 2018	None	-
4 th September 2018	None	-
6 th September 2018	None	-
12 th September 2018	None	-
13 th September 2018	None	2Bb
22 nd September 2018	None	-
27 th September 2018	None	-

Note: Bb = common toad

- 4.5 During these visits, visual and terrestrial searches were also carried out.

Timing

- 4.6 Reptile survey works were undertaken throughout September 2018, all were therefore completed within the optimal survey period.

Weather Conditions

- 4.7 Survey visits were not carried out during rain or when it was windy as reptiles do not emerge or bask in such conditions. The temperature should ideally be between 10°C and 18°C. If temperatures are over 18°C then reptiles are less likely to use refuges as they will be warm enough and have no need to bask. The ambient air temperature will ensure that they remain warm. Visits were therefore more commonly made in the mid-morning period before temperatures had risen too high.

- 4.8 Weather conditions prior to and during the reptile surveys were suitable to undertake such a survey.

Personnel

- 4.9 All survey works were undertaken by experienced Ecologists Mr A. Leishman, Mr C. Smith, and Mr B. Meadows

Constraints

- 4.10 There were no constraints encountered during the survey period.

5.0 Conclusion & Recommendations

- 5.1 The desktop study found one record of reptiles, specifically grass snake, within 1km of the proposed development site.
- 5.2 The surveys identified habitats that are considered suitable to support the common reptile species, but evidence of reptiles was found to be absent. The reptile survey strictly followed standard best practice survey methods and were undertaken by suitably experienced ecologists.
- 5.3 Therefore, at the time of the survey, there are no apparent implications with regards to the proposed development and reptiles.
- 5.4 It is noted that grass snake has historically been recorded in the local area and it is acknowledged that habitats are suitable to support this species within parts of the site. Taking this into account, as best practice it is advised that all the contractors are subject to a toolbox talk, to raise awareness. The toolbox talk should raise awareness by reviewing photographs of grass snake, discussing their habitat preferences, legal protection and what to do should a grass snake be suspected or found on site.
- 5.5 If at any time a grass snake is suspected or found on site, works should cease in that area and the acting consultant or Natural Resources for Wales shall be contacted for advice.
- 5.6 It is recommended that grass snake is taken into account when designing mitigation for other species at the site, mainly great crested newt, as there are opportunities to enhance the site's suitability to support reptiles, by the creation of refugia and potentially pond enhancements.

6.0 References

FROGLIFE (1999) Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

JOINT NATURE CONSERVATION COMMITTEE (1998) Herpetofauna Worker's Manual (Gent, T. and Gibson, S. eds) JNCC, Peterborough.

Herpetofauna Groups of Britain and Ireland. Evaluating Local Mitigation/Translocation Programmes: Maintaining best practice and lawful standards.

Langton, T. (1989). Snakes and lizards. Whittet Books. London.

The Conservation of Habitats and Species Regulations 2017.

The Wildlife & Countryside Act 1981 (as amended).

Welsh Assembly Government (2009) Planning Policy Wales Technical Advice Note 5: Nature Conservation and Planning.

Welsh Government (2018) Planning Policy Wales Edition 10.

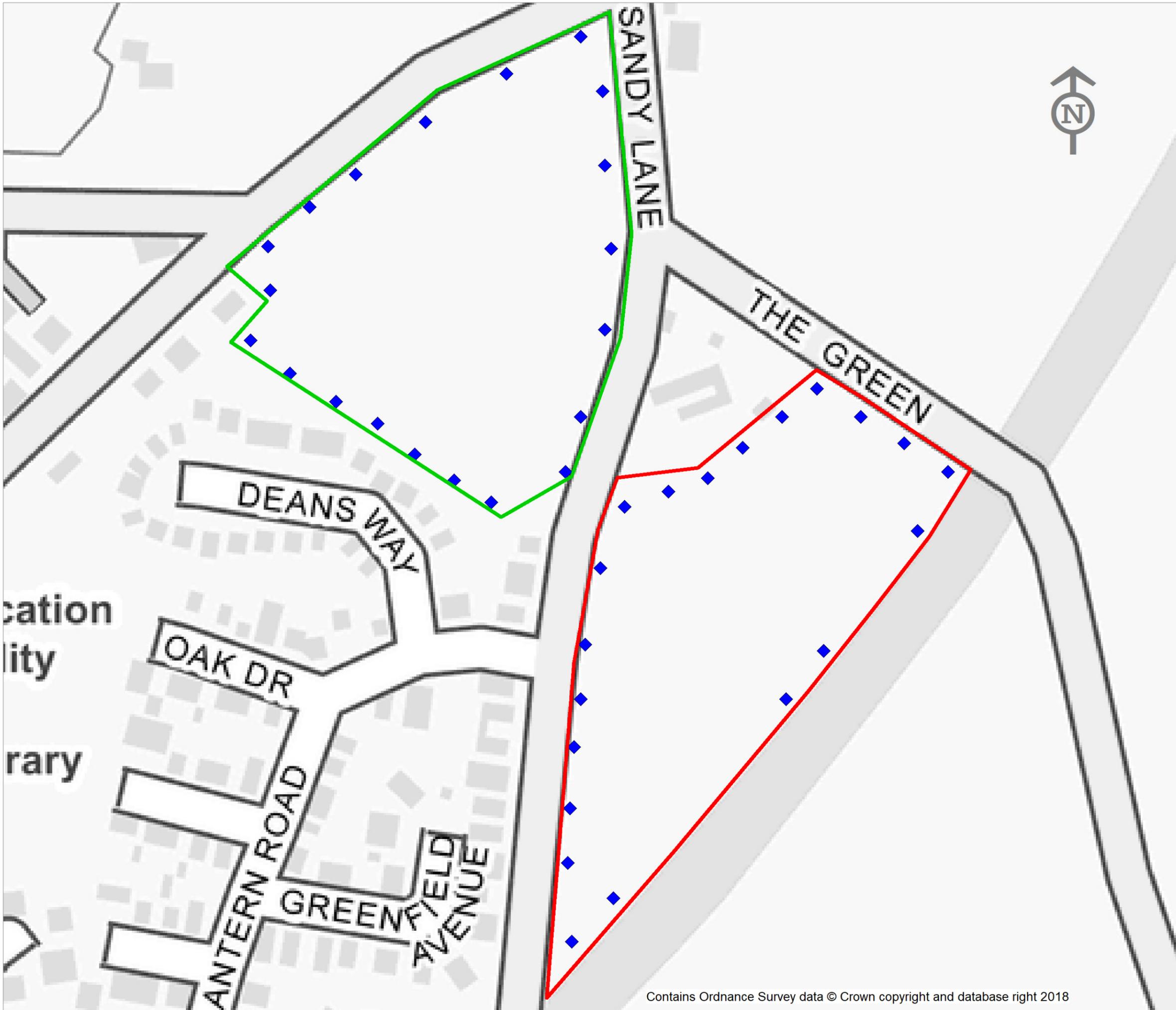
Drawing 1:
Location of Reptile Refugia

Drawing 1:
Location of
Reptile Refugia.

Map Ref: (NGR) 333378, 361508
Map Scale: 1:1500 @ A3

KEY

-  Area A boundary
-  Area B boundary
-  Location of placed refugia



Appendices
Appendix 1: Desktop Study Plan

Key

-  Search Location
-  Search Buffer (2000m)
-  Reptiles and Amphibians
-  Grass Snake

